

## **VII. COMPLIANCE AND ENFORCEMENT HISTORY**

### **Background**

To date, EPA has focused much of its attention on measuring compliance with specific environmental statutes. This approach allows the Agency to track compliance with the Clean Air Act, the Resource Conservation and Recovery Act, the Clean Water Act, and other environmental statutes. Within the last several years, the Agency has begun to supplement single-media compliance indicators with facility-specific, multimedia indicators of compliance. In doing so, EPA is in a better position to track compliance with all statutes at the facility level, and within specific industrial sectors.

A major step in building the capacity to compile multimedia data for industrial sectors was the creation of EPA's Integrated Data for Enforcement Analysis (IDEA) system. IDEA has the capacity to "read into" the Agency's single-media databases, extract compliance records, and match the records to individual facilities. The IDEA system can match Air, Water, Waste, Toxics/Pesticides/EPCRA, TRI, and Enforcement Docket records for a given facility, and generate a list of historical permit, inspection, and enforcement activity. IDEA also has the capability to analyze data by geographic area and corporate holder. As the capacity to generate multimedia compliance data improves, EPA will make available more in-depth compliance and enforcement information. Additionally, sector-specific measures of success for compliance assistance efforts are under development.

### **Compliance and Enforcement Profile Description**

Using inspection, violation, and enforcement data from the IDEA system, this section provides information regarding the historical compliance and enforcement activity of this sector. In order to mirror the facility universe reported in the Toxic Chemical Profile, the data reported within this section consists of records only from the TRI reporting universe. With this decision, the selection criteria are consistent across sectors with certain exceptions. For the sectors that do not normally report to the TRI program, data have been provided from EPA's Facility Indexing System (FINDS) which tracks facilities in all media databases. Please note, in this section, EPA does not attempt to define the actual number of facilities that fall within each sector. Instead, the section portrays the records of a subset of facilities within the sector that are well defined within EPA databases.

As a check on the relative size of the full sector universe, most notebooks contain an estimated number of facilities within the sector according to the Bureau of Census (See Section II). With sectors dominated by small businesses, such as metal finishers and printers, the reporting universe within the EPA databases may be small in comparison to Census data. However, the group selected for inclusion in this data analysis section should be consistent with this sector's general make-

up.

Following this introduction is a list defining each data column presented within this section. These values represent a retrospective summary of inspections and enforcement actions, and solely reflect EPA, State, and local compliance assurance activities that have been entered into EPA databases. To identify any changes in trends, the EPA ran two data queries, one for the past five calendar years (August 10, 1990 to August 9, 1995) and the other for the most recent twelve-month period (August 10, 1994 to August 9, 1995). The five-year analysis gives an average level of activity for that period for comparison to the more recent activity.

Because most inspections focus on single-media requirements, the data queries presented in this section are taken from single media databases. These databases do not provide data on whether inspections are State/local or EPA-led. However, the table breaking down the universe of violations does give the reader a crude measurement of the EPA's and States' efforts within each media program. The presented data illustrate the variations across regions for certain sectors.<sup>2</sup> This variation may be attributable to State/local data entry variations, specific geographic concentrations, proximity to population centers, sensitive ecosystems, highly toxic chemicals used in production, or historical noncompliance. Hence, the exhibited data do not rank regional performance or necessarily reflect which regions may have the most compliance problems.

## Compliance and Enforcement Data Definitions

### General Definitions

**Facility Indexing System (FINDS)** -- this system assigns a common facility number to EPA single-media permit records. The FINDS identification number allows EPA to compile and review all permit, compliance, enforcement, and pollutant release data for any given regulated facility.

**Integrated Data for Enforcement Analysis (IDEA)** -- is a data integration system that can retrieve information from the major EPA program office databases. IDEA uses the FINDS identification number to "glue together" separate data records from EPA's databases. This is done to create a "master list" of data records for any given facility. Some of the data systems accessible through IDEA are: AIRS (Air Facility Indexing and Retrieval System, Office of Air and Radiation), PCS (Permit Compliance System, Office of Water), RCRIS (Resource Conservation and Recovery Information System, Office of Solid Waste), NCDB (National Compliance Data Base, Office of Prevention, Pesticides, and Toxic Substances), CERCLIS (Comprehensive Environmental and Liability Information System, Superfund), and TRIS (Toxic Release Inventory System). IDEA also contains information from outside sources such as Dun and Bradstreet and the Occupational Safety and Health Administration (OSHA). Most data

queries displayed in notebook Sections IV and VII were conducted using IDEA.

### **Data Table Column Heading Definitions**

**Facilities in Search** -- are based on the universe of TRI reporters within the listed SIC code range. For industries not covered under TRI reporting requirements, the notebook uses the FINDS universe for executing data queries. The SIC code range selected for each search is defined by each notebook's selected SIC code coverage described in Section II.

**Facilities Inspected** --- indicates the level of EPA and State agency facility inspections for the facilities in this data search. These values show what percentage of the facility universe is inspected in a 12 or 60 month period. This column does not count non-inspectional compliance activities such as the review of facility-reported discharge reports.

**Number of Inspections** -- measures the total number of inspections conducted in this sector. An inspection event is counted each time it is entered into a single media database.

**Average Time Between Inspections** -- provides an average length of time, expressed in months, that a compliance inspection occurs at a facility within the defined universe.

**Facilities with One or More Enforcement Actions** -- expresses the number of facilities that were party to at least one enforcement action within the defined time period. This category is broken down further into Federal and State actions. Data are obtained for administrative, civil/judicial, and criminal enforcement actions. Administrative actions include Notices of Violation (NOVs). A facility with multiple enforcement actions is only counted once in this column (facility with 3 enforcement actions counts as 1). All percentages that appear are referenced to the number of facilities inspected.

**Total Enforcement Actions** -- describes the total number of enforcement actions identified for an industrial sector across all environmental statutes. A facility with multiple enforcement actions is counted multiple times (a facility with 3 enforcement actions counts as 3).

**State Lead Actions** -- shows what percentage of the total enforcement actions are taken by State and local environmental agencies. Varying levels of use by States of EPA data systems may limit the volume of actions accorded State enforcement activity. Some States extensively report enforcement activities into EPA data systems, while other States may use their own data systems.

**Federal Lead Actions** -- shows what percentage of the total enforcement actions are taken by the U.S. EPA. This value includes referrals from State agencies. Many of these actions result from coordinated or joint State/Federal efforts.

**Enforcement to Inspection Rate** -- expresses how often enforcement actions result from inspections. This value is a ratio of enforcement actions to inspections, and is presented for comparative purposes only. This measure is a rough indicator of the relationship between inspections and enforcement. This measure simply indicates historically how many enforcement actions can be attributed to inspection activity. Related inspections and enforcement actions under the Clean Water Act (PCS), the Clean Air Act (AFS) and the Resource Conservation and Recovery Act (RCRA) are included in this ratio. Inspections and actions from the TSCA/FIFRA/EPCRA database are not factored into this ratio because most of the actions taken under these programs are not the result of facility inspections. This ratio does not account for enforcement actions arising from non-inspection compliance monitoring activities (e.g., self-reported water discharges) that can result in enforcement action within the CAA, CWA and RCRA.

**Facilities with One or More Violations Identified** -- indicates the number and percentage of inspected facilities having a violation identified in one of the following data categories: In Violation or Significant Violation Status (CAA); Reportable Noncompliance, Current Year Noncompliance, Significant Noncompliance (CWA); Noncompliance and Significant Noncompliance (FIFRA, TSCA, and EPCRA); Unresolved Violation and Unresolved High Priority Violation (RCRA). The values presented for this column reflect the extent of

noncompliance within the measured time frame, but do not distinguish between the severity of the noncompliance. Percentages within this column can exceed 100% because facilities can be in violation status without being inspected. Violation status may be a precursor to an enforcement action, but does not necessarily indicate that an enforcement action will occur.

**Media Breakdown of Enforcement Actions and Inspections** -- four columns identify the proportion of total inspections and enforcement actions within EPA Air, Water, Waste, and TSCA/FIFRA/EPCRA databases. Each column is a percentage of either the "Total Inspections" or the "Total Actions" column.

#### **VII.A. Motor Vehicles and Motor Vehicle Equipment Compliance History**

Exhibit 26 provides a Regional breakdown of the five year enforcement and compliance activities for the automobile industry. Of 2,734 total inspections performed during the five-year period, 1,255 (46 percent) were conducted in Region V. This large percentage is due to the concentration of automobile manufacturers in the Great Lakes Region.

**Exhibit 26**  
**Five Year Enforcement and Compliance Summary for the**  
**Motor Vehicle Assembly Industry**

A	B	C	D	E	F	G	H	I	J
Motor Vehicle Assembly SIC 37	Facilities in Search	Facilities Inspected	Number of Inspections	Average Number of Months Between Inspections	Facilities w/one or more Enforcement Actions	Total Enforcement Actions	State Lead Actions	Federal Lead Actions	Enforcement to Inspection Rate
Region I	9	8	27	20	4	12	58%	42%	0.44
Region II	21	18	84	15	7	28	71%	29%	0.33
Region III	38	25	248	9	6	16	94%	6%	0.06
Region IV	131	91	619	13	13	65	97%	03%	0.11
Region V	284	182	977	17	34	69	75%	25%	0.07
Region VI	29	16	82	21	5	10	70%	30%	0.12
Region VII	47	34	144	20	7	23	62%	48%	0.16
Region VIII	8	4	9	53	1	1	100%	0%	0.11
Region IX	25	7	18	83	3	16	94%	6%	0.89
Region X	6	5	8	45	0	0	N	N	n/a
Total/Average	598	390	2216	16	81	240	80%	20%	0.11

**VII.B.Comparison of Enforcement Activity Between Selected Industries**

Exhibits 27-30 contain summaries of the one and five year enforcement and compliance activities for the motor vehicles and motor vehicle equipment industry, as well as for other industries. As shown in exhibits 27 and 28, the automotive industry has a moderately high enforcement to inspection rate when compared to other industries. Exhibits 29 and 30 provide a breakdown of inspection and enforcement activities by statute. Of all the automotive facilities inspected, approximately 54 percent were performed under RCRA and 33 percent under CAA. The large percentages of CAA and RCRA inspections for this industry are due to the high levels of VOC emissions released during solvent-intensive manufacturing processes. The low number of CWA inspections is fairly surprising due the large quantities of water used during metal finishing and painting/finishing processes.

**Exhibit 27**  
**Five Year Enforcement and Compliance Summary for Selected Industries**

A	B	C	D	E	F	G	H	I	J
Industry Sector	Facilities in Search	Facilities Inspected	Number of Inspections	Average Number of Months Between Inspections	Facilities w/One or More Enforcement Actions	Total Enforcement Actions	State Lead Actions	Federal Lead Actions	Enforcement to Inspection Rate
Metal Mining	873	339	1,519	34	67	155	47%	53%	0.10
Non-metallic Mineral Mining	1,143	631	3,422	20	84	192	76%	24%	0.06
Lumber and Wood	464	301	1,891	15	78	232	79%	21%	0.12
Furniture	293	213	1,534	11	34	91	91%	9%	0.06
Rubber and Plastic	1,665	739	3,386	30	146	391	78%	22%	0.12
Stone, Clay, and Glass	468	268	2,475	11	73	301	70%	30%	0.12
Nonferrous Metals	844	474	3,097	16	145	470	76%	24%	0.15
Fabricated Metal	2,346	1,340	5,509	26	280	840	80%	20%	0.15
Electronics/Computers	405	222	777	31	68	212	79%	21%	0.27
Motor Vehicle Assembly	598	390	2,216	16	81	240	80%	20%	0.11
Pulp and Paper	306	265	3,766	5	115	502	78%	22%	0.13
Printing	4,106	1,035	4,723	52	176	514	85%	15%	0.11
Inorganic Chemicals	548	298	3,034	11	99	402	76%	24%	0.13
Organic Chemicals	412	316	3,864	6	152	726	66%	34%	0.19
Petroleum Refining	156	145	3,257	3	110	797	66%	34%	0.25
Iron and Steel	374	275	3,555	6	115	499	72%	28%	0.14
Dry Cleaning	933	245	633	88	29	103	99%	1%	0.16



**Exhibit 28**  
**One Year Enforcement and Compliance Summary for Selected Industries**

A	B	C	D	E		F		G	H
Industry Sector	Facilities in Search	Facilities Inspected	Number of Inspections	Facilities w/One or More Violations		Facilities w/One or More Enforcement Actions		Total Enforcement Actions	Enforcement to Inspection Rate
				Number	Percent*	Number	Percent*		
Metal Mining	873	114	194	82	72%	16	14%	24	0.13
Non-metallic Mineral Mining	1,143	253	425	75	30%	28	11%	54	0.13
Lumber and Wood	464	142	268	109	77%	18	13%	42	0.15
Furniture	293	160	113	66	41%	3	2%	5	0.04
Rubber and Plastic	1,665	271	435	289	107%	19	7%	59	0.14
Stone, Clay, and Glass	468	146	330	116	79%	20	14%	66	0.20
Nonferrous Metals	844	202	402	282	140%	22	11%	72	0.18
Fabricated Metal	2,346	477	746	525	110%	46	10%	114	0.15
Electronics/Computers	405	60	87	80	133%	8	13%	21	0.24
Motor Vehicle Assembly	598	169	284	162	96%	14	8%	28	0.10
Pulp and Paper	306	189	576	162	86%	28	15%	88	0.15
Printing	4,106	397	676	251	63%	25	6%	72	0.11
Inorganic Chemicals	548	158	427	167	106%	19	12%	49	0.12
Organic Chemicals	412	195	545	197	101%	39	20%	118	0.22
Petroleum Refining	156	109	437	109	100%	39	36%	114	0.26
Iron and Steel	374	167	488	165	99%	20	12%	46	0.09
Dry Cleaning	933	80	111	21	26%	5	6%	11	0.10
*Percentages in Columns E and F are based on the number of facilities inspected (Column C). Percentages can exceed 100% because violations and actions can occur without a facility inspection.									

## Exhibit 29

## Five Year Inspection and Enforcement Summary by Statute for Selected Industries

Industry Sector	Number of Facilities Inspected	Total Inspections	Enforcement Actions	Clean Air Act		Clean Water Act		Resource Conservation and Recovery Act		FIFRA/TSCA/* EPCRA/Other	
				% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions
Metal Mining	339	1,519	155	35%	17%	57%	60%	6%	14%	1%	9%
Non-metallic Mineral Mining	631	3,422	192	65%	46%	31%	24%	3%	27%	<1%	4%
Lumber and Wood	301	1,891	232	31%	21%	8%	7%	59%	67%	2%	5%
Furniture	293	1,534	91	52%	27%	1%	1%	45%	64%	1%	8%
Rubber and Plastic	739	3,386	391	39%	15%	13%	7%	44%	68%	3%	10%
Stone, Clay and Glass	268	2,475	301	45%	39%	15%	5%	39%	51%	2%	5%
Nonferrous Metals	474	3,097	470	36%	22%	22%	13%	38%	54%	4%	10%
Fabricated Metal	1,340	5,509	840	25%	11%	15%	6%	56%	76%	4%	7%
Electronic s/ Computers	222	777	212	16%	2%	14%	3%	66%	90%	3%	5%
Motor Vehicle Assembly	390	2,216	240	35%	15%	9%	4%	54%	75%	2%	6%
Pulp and Paper	265	3,766	502	51%	48%	38%	30%	9%	18%	2%	3%
Printing	1,035	4,723	514	49%	31%	6%	3%	43%	62%	2%	4%
Inorganic Chemicals	302	3,034	402	29%	26%	29%	17%	39%	53%	3%	4%
Organic Chemicals	316	3,864	726	33%	30%	16%	21%	46%	44%	5%	5%
Petroleum Refining	145	3,237	797	44%	32%	19%	12%	35%	52%	2%	5%
Iron and Steel	275	3,555	499	32%	20%	30%	18%	37%	58%	2%	5%
Dry Cleaning	245	633	103	15%	1%	3%	4%	83%	93%	<1%	1%

\*

Actions taken to enforce the Federal Insecticide, Fungicide, and Rodenticide Act; the Toxic Substances and Control Act, and the Emergency Planning and Community Right-to-Know Act as well as other Federal environmental laws.

**Exhibit 30**  
**One Year Inspection and Enforcement Summary by Statute for Selected Industries**

Industry Sector	Number of Facilities Inspected	Total Inspections	Enforcement Actions	Clean Air Act		Clean Water Act		Resource Conservation and Recovery Act		FIFRA/TSCA/EPCRA/Other	
				% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions
Metal Mining	114	194	24	47%	42%	43%	34%	10%	6%	<1%	19%
Non-metallic Mineral Mining	253	425	54	69%	58%	26%	16%	5%	16%	<1%	11%
Lumber and Wood	142	268	42	29%	20%	8%	13%	63%	61%	<1%	6%
Furniture	293	160	5	58%	67%	1%	10%	41%	10%	<1%	13%
Rubber and Plastic	271	435	59	39%	14%	14%	4%	46%	71%	1%	11%
Stone, Clay, and Glass	146	330	66	45%	52%	18%	8%	38%	37%	<1%	3%
Nonferrous Metals	202	402	72	33%	24%	21%	3%	44%	69%	1%	4%
Fabricated Metal	477	746	114	25%	14%	14%	8%	61%	77%	<1%	2%
Electronics/Computers	60	87	21	17%	2%	14%	7%	69%	87%	<1%	4%
Motor Vehicle Assembly	169	284	28	34%	16%	10%	9%	56%	69%	1%	6%
Pulp and Paper	189	576	88	56%	69%	35%	21%	10%	7%	<1%	3%
Printing	397	676	72	50%	27%	5%	3%	44%	66%	<1%	4%
Inorganic Chemicals	158	427	49	26%	38%	29%	21%	45%	36%	<1%	6%
Organic Chemicals	195	545	118	36%	34%	13%	16%	50%	49%	1%	1%
Petroleum Refining	109	439	114	50%	31%	19%	16%	30%	47%	1%	6%
Iron and Steel	167	488	46	29%	18%	35%	26%	36%	50%	<1%	6%
Dry Cleaning	80	111	11	21%	4%	1%	22%	78%	67%	<1%	7%

\* Actions taken to enforce the Federal Insecticide, Fungicide, and Rodenticide Act; the Toxic Substances and Control Act, and the Emergency Planning and Community Right-to-Know Act as well as other Federal environmental laws.

## VII.C. Review of Major Legal Actions

As indicated in EPA's *Enforcement Accomplishments Report, FY 1991, FY 1992, and FY 1993* publications, eight significant enforcement cases were resolved between 1991 and 1993 for the motor vehicle industry. Two of these cases involved CAA violations, two were comprised of CERCLA violations, while the other four involved one RCRA, one TSCA, one CWA, and one action involving violations of multiple statutes. The companies against which the cases were brought are primarily motor vehicle and motor vehicle parts manufacturers.

### VII.C.1. Review of Major Cases

This section provides summary information about major cases that have affected this sector. Four of the eight cases resulted in the assessment of a civil penalty. Penalties ranged from \$50,000 to \$1,539,326, and the average civil penalty paid was \$691,965. In three cases, the defendant was required to spend additional money to improve production processes or technologies, and to increase further compliance. For example, in U.S. v. General Motors Corporation (1991), a consent decree was entered requiring GM to install a coating system that reduces VOCs from its paint shop operations from approximately 3,400 tons per year to 750-800 tons per year. GM also paid a civil penalty of \$1,539,326.

A Supplemental Environmental Project (SEP) was required in one of the cases. The settlement in In the Matter of the Knapheide Manufacturing Co., includes SEPs to partially offset the \$428,533 penalty. The initial SEP requires performance of an environmental compliance audit, which will identify and propose additional SEPs as binding commitments.

In U.S. v. Raymark Industries, Inc. (1991), the Department of Justice filed a civil complaint requesting that the court order the company to study and perform corrective action at its facility in Stratford, CT. Raymark had manufactured automobile brakes and friction products at this 34-acre facility and had disposed of its hazardous wastes (principally lead-asbestos wastes and dust) onsite. In some areas, this lead-asbestos fill is 17 feet deep. The complaint requests that the court order Raymark to comply with an administrative order issued by EPA in 1987, pursuant to §3031 of RCRA, which instructs the company to study its site in order to ascertain the nature and extent of the hazard created by the presence and release of hazardous waste. Raymark has failed to comply with the terms of the order. Based on the results of this study, the complaint also requests that Raymark be ordered to carry out a corrective action plan as approved by EPA.

In U.S. v. Chrysler Corporation et. al. (1993), the court entered a CERCLA consent decree under which the settling defendants will clean up the PCB contamination at the Cater Industrials Superfund site in Detroit, Michigan and

pay about \$3 million in past costs. The total cost of the cleanup is estimated to be \$24 million. Settling defendants include Chrysler, Ford, GM, Michigan's two public utilities, and the City of Detroit. Unusual features of the decree include provisions for EPA to perform some of the work, and a special covenant not to sue in accordance with §122(f)(2) of CERCLA.

#### VII.C.2. Supplemental Environmental Projects

Below is list of Supplementary Environmental Projects (SEPs). SEPs are compliance agreements that reduce a facility's stipulated penalty in return for an environmental project that exceeds the value of the reduction. Often, these projects fund pollution prevention activities that can significantly reduce the future pollutant loadings of a facility.

In December, 1993, the Regions were asked by EPA's Office of Enforcement and Compliance Assurance to provide information on the number and type of SEPs entered into by the Regions. Exhibit 31 contains a sample of the Regional responses addressing the automotive industry. The information contained in the chart is not comprehensive and provides only a sample of the types of SEPs developed for the automotive industry.

## Exhibit 31

## Supplemental Environmental Projects

Case Name	EPA Region	Statute Type of Action	Type of SEP	Estimated Cost to Company	Expected Environmental Benefits	Final Assessed Penalty	Final Penalty After Mitigation
Ford Motor Company St. Paul, MN	5	TSCA	Pollution Reduction	\$ 35,000	Remove and destroy a PCB transformer and replace it with a non-PCB transformer to reduce the risk of discharge of PCBs into the environment.	\$ 26,000	\$ 10,100

## **VIII. COMPLIANCE ASSURANCE ACTIVITIES AND INITIATIVES**

This section highlights the activities undertaken by this industry sector and public agencies to voluntarily improve the sector's environmental performance. These activities include those independently initiated by industrial trade associations. In this section, the notebook also contains a listing and description of national and regional trade associations.

### **VIII.A. Sector-Related Environmental Programs and Activities**

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The automotive industry is involved in numerous sector-related environmental activities. Some of these efforts are highlighted below.

#### *Common Sense Initiative*

The Common Sense Initiative (CSI), a partnership between EPA and private industry, aims to create environmental protection strategies that are cleaner for the environment and cheaper for industry and taxpayers. As part of CSI, representatives from Federal, State, and local governments; industry; community-based and national environmental organizations; environmental justice groups; and labor organizations, come together to examine the full range of environmental requirements affecting the following six selected industries: automobile manufacturing; computers and electronics, iron and steel, metal finishing, petroleum refining, and printing.

CSI participants are looking for solutions that:

- ¥ Focus on the industry as a whole rather than one pollutant
- ¥ Seek consensus-based solutions
- ¥ Focus on pollution prevention rather than end-of-pipe controls
- ¥ Are industry-specific.

The Common Sense Initiative Council (CSIC), chaired by EPA Administrator Browner, consists of a parent council and six subcommittees (one per industry sector). Each of the subcommittees have met and have identified issues and project areas for emphasis, and workgroups have been established to analyze and make recommendation on these issues.

*EPA/Auto Protocol*

Procedures for assessing compliance during automobile painting and finishing operations were first outlined in a December 1988 EPA publication entitled, Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations, (EPA-450/3-88-018). This document, which is referred to as the EPA/Auto Protocol, contains information on recordkeeping, testing, and compliance calculation procedures. The Protocol has been used to demonstrate compliance with emission limits for topcoat and spray primer/surface coating activities.

EPA and AAMA have discussed and hope to update the protocol. AAMA hopes to have an automotive spraybooth capture efficiency procedure as well as some acceptable spraybooth/oven split test modifications for in-plant simulation incorporated into the protocol as a technical update.

Research*The American Industry/Government Emissions Research Cooperative Research and Development Agreement (AIGER CRADA)*

AIGER CRADA was officially launched in October 1992. The founding members - U.S. EPA, the California Air Resources Board, and USCAR's Environmental Research Consortium - came together to identify, encourage, evaluate, and develop the instrumentation and techniques needed to accurately and efficiently measure emissions from motor vehicles as required by the Clean Air Act and the California Health and Safety Code. This effort will help ensure that technologies are commercialized and available to emissions testing facilities.

*Partnership For A New Generation Of Vehicles*

Partnership For A New Generation Of Vehicles (PNGV), one of several research consortia under USCAR, is a partnership between domestic automotive manufacturers and the Federal government. The partnership is aimed at strengthening U.S. competitiveness by expanding the industry's technology base. Research will be performed in the following three areas:

- ¥ Advanced manufacturing techniques to make it easier to get new product ideas to the marketplace quickly;
- ¥ Technologies leading to near-term improvements in automobile efficiency, safety, and emissions; and
- ¥ Research leading to production prototypes of a vehicle capable of up to three times current fuel efficiency.



*President's Council on Sustainable Development - Eco-Efficiency Task Force*

The purpose of the Eco-Efficiency Task Force is to develop and recommend to the President's Council on Sustainable Development a strategy for making eco-efficiency and sustainable development standard business practices in American industry. The Task Force will highlight how changes in economic, regulatory, statutory, and other policies will encourage industry to become more aware of the interdependence among environmental, economic, and social well-being, and recommend policies effective in promoting sustainable business practices. The Task Force is sub-divided into five Eco-Efficiency Task Force Teams: Autos Team; Chemicals Sector Team; Eco-Industrial Park Team; Policy Team; and Printers/Small Business Team. The three goals of the Auto Team are to recommend ways to:

- ¥ Improve the eco-efficiency of automobile manufacturing by making pollution prevention, waste reduction, and product stewardship standard business practices
- ¥ Improve the system of environmental policy and regulation affecting automobile manufacturing
- ¥ Improve the sustainability of road-based transportation.

As part of its efforts, the Auto Team is collecting information on the life cycle analysis of automobile painting operations at a GM assembly plant. The team is also collecting data from the paint and pigment industry, the steel, plastics, and aluminum manufacturing industries, as well as the auto repainting industry. The project will assess the environmental, energy, and economic implications of various auto body material/coating choices such as solvent, water, or powder. The Task Force is expected to deliver its findings in late 1995.

## Outreach and Education Activity

### *Pollution Prevention and Waste Minimization in the Metal Finishing Industry Workshop*

The University of Nebraska-Lincoln sponsored a *Pollution Prevention and Waste Minimization in the Metal Finishing Industry* workshop in 1993. The workshop was designed for managers and operators of electroplating and galvanizing operations; engineers; environmental consultants; waste management consultants; Federal, State, and local government officials; and individuals responsible for training in the area of metal finishing waste management. Topics covered:

- ¥ Saving money and reducing risk through pollution prevention and waste minimization;
- ¥ Incorporating pollution prevention into planning electroplating and galvanizing operations;
- ¥ Conducting waste minimization audits;
- ¥ Developing and analyzing options for pollution prevention/waste minimization; and
- ¥ Implementing a pollution prevention/waste minimization program.

For more information concerning this workshop, contact David Montage of the University of Nebraska at W348 Nebraska Hall, Lincoln, NE 68588-0531.

### *Hazardous Waste Management for Small Business Workshop*

The University of Northern Iowa, with support from U.S. EPA, Des Moines Area Community College, Northeast Iowa Community College, Scott Community College, and Indiana Hills Community College, sponsored a *Hazardous Waste Management for Small Business* workshop. This workshop was geared for small businesses and was intended to provide practical answers to environmental regulatory questions. Small businesses covered by the workshop include: manufacturers, vehicle maintenance and repair shops, printers, machine shops, and other businesses that generate potentially hazardous waste. Topics covered included: hazardous waste determination, waste generator categories, management of specific common waste streams, including used oil and solvents, and pollution prevention. For more information regarding workshop, contact Duane McDonald (319) 273-6899.

### *Environmentally Conscious Painting Workshop*

Kansas State University, NIST/Mid-America Manufacturing Technology Center, Kansas Department of Health & Environment, EPA Region VII, Allied Signal, Inc., Kansas City Plant, and the U.S. Department of Energy sponsored the *Environmentally Conscious Painting* workshop. This workshop covered topics

such as upcoming regulations and the current regulatory climate, methods to cost-effectively reduce painting wastes and emissions, and alternative painting processes. For more information regarding this workshop, contact the Kansas State University Division of Continuing Education (913) 532-5566.

#### *Pollution Prevention Workshop for the Electroplating Industry*

Kansas State University Engineering Extension, EPA Region VII, Kansas Department of Health and Environment, and the University of Kansas sponsored the *Pollution Prevention Workshop for the Electroplating Industry*. The workshop described simple techniques for waste reduction in the electroplating industry, including: plating, rinsing processes and wastewater, wastewater management options, metals recovery options, waste treatment and management, and product substitutions and plating alternatives. For more information regarding this workshop, contact the Kansas State University Division of Continuing Education at (800) 432-8222.

### **VIII.B. EPA Voluntary Programs**

#### **33/50 Program**

The "33/50 Program" is EPA's voluntary program to reduce toxic chemical releases and transfers of 17 chemicals from manufacturing facilities. Participating companies pledge to reduce their toxic chemical releases and transfers by 33 percent as of 1992 and by 50 percent as of 1995 from the 1988 baseline year. Certificates of Appreciation have been given to participants who met their 1992 goals. The list of chemicals includes 17 high-use chemicals reported in the Toxics Release Inventory.

Sixty-six companies listed under SIC 37 (transportation) are currently participating in the 33/50 program. They account for approximately 20 percent of the 405 companies under SIC 37, which is slightly higher than the average for all industries of 14 percent participation. It should be noted, however, that the two digit SIC 37 covers a large number of small firms performing numerous manufacturing processes. (Contact: Mike Burns (202) 260-6394 or the 33/50 Program (202) 260-6907)

Exhibit 32 lists those companies participating in the 33/50 program that reported under SIC code 37 to TRI. Many of the participating companies listed multiple SIC codes (in no particular order), and are therefore likely to conduct operations in addition to the motor vehicle assembly industry. The table shows the number of facilities within each company that are participating in the 33/50 program; each company's total 1993 releases and transfers of 33/50 chemicals; and the percent reduction in these chemicals since 1988.

**Exhibit 32**  
**Motor Vehicle Assembly Facilities Participating in the 33/50 Program**

Parent Facility name	Parent City	ST	SIC Codes	# of	1993 Releases	%
American Honda Motor	Torrance	CA	3711	2	3,254,180	*
Chrysler Corporation	Highland	MI	3711	8	3,623,717	80
Ford Motor Company	Dearborn	MI	3465,	19	15,368,032	15
General Motors Corporation	Detroit	MI	3711	23	16,751,198	*
Harsco Corporation	Camp Hill	PA	3711,	1	415,574	**
Navistar International Corp.	Chicago	IL	3711	1	180,834	*
New United Motor	Fremont	CA	3711	1	420,125	**
Northrop Grumman Corp.	Los Angeles	CA	3711	1	2,357,844	35
Superior Coaches	Lima	OH	3711	1	87,900	44
* = not quantifiable against 1988						

### Environmental Leadership Program

The Environmental Leadership Program (ELP) is a national initiative piloted by EPA and State agencies in which facilities have volunteered to demonstrate innovative approaches to environmental management and compliance. EPA has selected 12 pilot projects at industrial facilities and Federal installations which will demonstrate the principles of the ELP program. These principles include: environmental management systems, multimedia compliance assurance, third-party verification of compliance, public measures of accountability, community involvement, and mentoring programs. In return for participating, pilot participants receive public recognition and are given a period of time to correct any violations discovered during these experimental projects. (Contact: Tai-ming Chang, ELP Director (202) 564-5081 or Robert Fentress (202) 564-7023)

### Project XL

Project XL was initiated in March 1995 as a part of President Clinton's *Reinventing Environmental Regulation* initiative. The projects seek to achieve cost effective environmental benefits by allowing participants to replace or modify existing regulatory requirements on the condition that they produce greater environmental benefits. EPA and program participants will negotiate and sign a Final Project Agreement, detailing specific objectives that the regulated entity shall satisfy. In exchange, EPA will allow the participant a certain degree of regulatory flexibility and may seek changes in underlying regulations or statutes. Participants are encouraged to seek stakeholder support from local governments, businesses, and environmental groups. EPA hopes to implement fifty pilot projects in four categories including facilities, sectors, communities, and government agencies regulated by EPA. Applications will be accepted on a rolling basis and projects will move to implementation within six months of their selection. For additional information regarding XL Projects, including application procedures and criteria,

see the May 23, 1995 Federal Register Notice, or contact Jon Kessler at EPA's Office of Policy Analysis (202) 260-4034.

### **Green Lights Program**

EPA's Green Lights program was initiated in 1991 and has the goal of preventing pollution by encouraging U.S. institutions to use energy-efficient lighting technologies. The program has over 1,500 participants which include major corporations; small and medium sized businesses; Federal, State and local governments; non-profit groups; schools; universities; and health care facilities. Each participant is required to survey their facilities and upgrade lighting wherever it is profitable. EPA provides technical assistance to the participants through a decision support software package, workshops and manuals, and a financing registry. EPA's Office of Air and Radiation is responsible for operating the Green Lights Program. (Contact: Susan Bullard at (202) 233-9065 or the Green Light/Energy Star Hotline at (202) 775-6650)

## **WasteWi\$e Program**

The WasteWi\$e Program was started in 1994 by EPA's Office of Solid Waste and Emergency Response. The program is aimed at reducing municipal solid wastes by promoting waste minimization, recycling collection, and the manufacturing and purchase of recycled products. As of 1994, the program had about 300 companies as members, including a number of major corporations. Members agree to identify and implement actions to reduce their solid wastes and must provide EPA with their waste reduction goals along with yearly progress reports. EPA in turn provides technical assistance to member companies and allows the use of the WasteWi\$e logo for promotional purposes. (Contact: Lynda Wynn (202) 260-0700 or the WasteWi\$e Hotline at (800) 372-9473)

## **Climate Wise Recognition Program**

The Climate Change Action Plan was initiated in response to the U.S. commitment to reduce greenhouse gas emissions in accordance with the Climate Change Convention of the 1990 Earth Summit. As part of the Climate Change Action Plan, the Climate Wise Recognition Program is a partnership initiative run jointly by EPA and the Department of Energy. The program is designed to reduce greenhouse gas emissions by encouraging reductions across all sectors of the economy, encouraging participation in the full range of Climate Change Action Plan initiatives, and fostering innovation. Participants in the program are required to identify and commit to actions that reduce greenhouse gas emissions. The program, in turn, gives organizations early recognition for their reduction commitments; provides technical assistance through consulting services, workshops, and guides; and provides access to the program's centralized information system. At EPA, the program is operated by the Air and Energy Policy Division within the Office of Policy Planning and Evaluation. (Contact: Pamela Herman (202) 260-4407)

## **NICE<sup>3</sup>**

The U.S. Department of Energy and EPA's Office of Pollution Prevention are jointly administering a grant program called The National Industrial Competitiveness through Energy, Environment, and Economics (NICE3). By providing grants of up to 50 percent of the total project cost, the program encourages industry to reduce industrial waste at its source and become more energy-efficient and cost-competitive through waste minimization efforts. Grants are used by industry to design, test, demonstrate, and assess the feasibility of new processes and/or equipment with the potential to reduce pollution and increase energy efficiency. The program is open to all industries; however, priority is given to proposals from participants in the pulp and paper, chemicals, primary metals, and petroleum and coal products sectors. (Contact: DOE's Golden Field Office (303) 275-4729)

### VIII.C. Trade Associations/Industry Sponsored Activity

As one of the most highly regulated industries in the U.S., the automotive industry is constantly forced to identify and develop new ways to produce motor vehicles and motor vehicle parts more efficiently and with less waste. In an effort to pool resources, three manufacturers have formed a partnership to promote pollution prevention initiatives. Information is also provided on the various trade associations which support the industry.

#### VIII.C.1. Environmental Programs

##### *Automobile Pollution Prevention Project (Auto Project)*

Auto Project is a voluntary partnership between the Big Three automobile manufactures and the State of Michigan (on behalf of eight Great Lakes States and the U.S. EPA) to promote pollution prevention. Initiated on September 24, 1991, Auto Project is the first public/private initiative focused specifically on the environmental impacts resulting from automobile manufacturing. Auto Project is administered by the American Automobile Manufacturers Association (AAMA) and the Michigan Department of Natural Resources (MDNR). The purpose of the project is to:

- ¥ Identify Great Lakes Persistent Toxic (GLPT) substances and reduce their generation and release
- ¥ Advance pollution prevention within the auto industry and its supplier base
- ¥ Reduce releases of GLPT substances beyond regulatory requirements
- ¥ Address regulatory barriers that inhibit pollution prevention.

A progress report released in February 1994 states that significant accomplishments have been achieved in the last two years and that releases of the listed GLPT substances by auto companies have been cut by 20.2 percent in the first year of the Auto Project. Other accomplishments of Auto Project include:

- ¥ Developed criteria for identification of GLPT substances
- ¥ Identified 65 GLPT substances based on the criteria
- ¥ Provided highlights of historical pollution prevention efforts
- ¥ Established priorities and identified opportunities to reduce the generation and release of the listed substances
- ¥ Provided pollution prevention case study information for technology transfer to auto suppliers and other companies

- ¥ Established a pilot program to identify and reduce regulatory barriers to pollution prevention actions.

In October 1993 a comprehensive evaluation of the first two years of the Auto Project was conducted by members of the Great Lakes environmental community. Results of the evaluation were documented in a 1993 report entitled *So Much Promise, So Little Progress - An Evaluation of the State of Michigan/Auto Industry Great Lakes Pollution Prevention Initiative* written by the Ann Arbor, Michigan Ecology Center. The report concludes that although still promising, Auto Project has been mostly unsuccessful. The Great Lakes environmental groups claimed the following:

- ¥ Auto companies have not conducted the promised surveys of pollution generated by individual plants and manufacturing processes
- ¥ Auto companies have initiated few new pollution prevention projects
- ¥ Auto company suppliers, who account for more toxic releases than the auto companies themselves, have not been brought into the project
- ¥ Stakeholders (environmental groups and labor) have not had adequate opportunities to participate
- ¥ Auto companies have yet to establish clear goals or timetables for eliminating toxic substances from their processes.



VIII.C.2. Summary of Trade AssociationsTrade Associations*Automotive Manufacturers*

American Automobile Manufacturers Association (AAMA) 1401 H Street, NW, Suite 900 Washington, DC 20005 Phone: (202) 326-5500 Fax: (202) 326-5567	Members: 3 Staff: 100 Budget: \$14,000,000 Contact: Andrew H. Card, Jr.
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Founded in 1913, AAMA, formerly the Motor Vehicle Manufacturers Association, represents manufacturers of passenger and commercial cars, trucks, and buses to improve vehicle safety, reduce air pollution, and assist in long-term energy conservation objectives. This association compiles statistics, disseminates information, and conducts research programs and legislative monitoring on Federal and State levels. AAMA also maintains patents and communications libraries, and publishes the following annual documents: *Motor Vehicle Facts and Figures*, *Motor Vehicle Identification Manual*, and *World Motor Vehicle Data Book*.

Association of International Automobile Manufacturers (AIAM) 1001 19th Street, North, Suite 1200 Arlington, VA 22209 Phone: (703) 525-7788 Fax: (703) 525-3289	Members: 35 Budget: \$4,200,000 Contact: Phillip Hutchinson
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Founded in 1964, AIAM represents companies that manufacture automobiles or automotive equipment and that import into, or export from, the United States. This association acts as a clearinghouse for information, especially with regard to proposed State and Federal regulations in the automobile industry as they bear on imported automobiles, and reports proposed regulations by State or Federal governments pertaining to equipment standards, licensing, and other matters affecting members. AIAM publishes materials on State and Federal laws, regulations, and standards.

American Foundrymen's Society (AFS) 505 State Street Des Plaines, IL 60016 Phone: (708) 824-0181 Fax: (708) 824-7848	Members: 13,500 Staff: 52 Contact: Ezra L. Kotzin
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Founded in 1896, AFS represents foundrymen, patternmakers, technologists, and educators and sponsors foundry training courses through the Cast Metals Institute on all subjects pertaining to the castings industry. The Society conducts educational and instructional activities on the foundry industry and sponsors ten regional foundry conferences and 400 local foundry technical meetings. AFS maintains the Technical Information Center, a literature search and document retrieval service, and the Metalcasting Abstract Service, which provides abstracts of the latest metal casting literature. In addition to providing environmental services and testing, AFS publishes *Modern Casting* (monthly), which covers current technology practices and other influences affecting the production and marketing of metal castings.

Automotive Presidents Council (APC) 1325 Pennsylvania Avenue, NW, 6th Floor Washington, D.C. 20004 Phone: (202) 393-6362 Fax: (202) 737-3742	Members: 50 Contact: Christopher Bates
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Founded in 1966, APC represents presidents and chief executive officers of leading manufacturing companies producing automotive parts, equipment, accessories, tools, paint, and refinishing supplies. This council provides a forum in which chief executives can discuss areas of mutual interest or top management problems, share ideas, and exchange solutions.

### *Automotive Parts and Equipment*

Automotive Parts and Accessories Association (APAA) 4600 East West Highway, Suite 300 Bethesda, MD 20814 Phone: (301) 654-6664 Fax: (301) 654-3299	Members: 2000 Staff: 26 Budget: \$3,000,000 Contact: Lawrence Hecker
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Founded in 1967, this association represents automotive parts and accessories retailers, distributors, manufacturers, and manufacturers' representatives. APAA conducts research, compiles statistics, conducts seminars, provides a specialized education program, and operates a speakers' bureau and placement service. This association publishes *APAA Frontlines* (bimonthly), *APAA Government Report* (periodic), *APAA Tech Service Report* (monthly), *APAA Who's Who* (annual),

*APAA Membership Directory* (periodic), *Computer News for the Automotive Aftermarket* (monthly), and *Foreign Buyers Directory* (annual).

Motor and Equipment Manufacturers Association (MEMA) #10 Laboratory Drive P.O. Box 13966 Research Triangle Park, NC 27709-3966 Phone: (919) 549-4800 Fax: (919) 549-4824	Members: 750 Staff: 62 Budget: \$3,500,000 Contact: Robert Miller
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Founded in 1904, MEMA represents manufacturers of automotive and heavy-duty original equipment and replacement components, maintenance equipment, chemicals, accessories, refinishing supplies, tools, and service equipment. This organization provides the following manufacturer-oriented services: marketing consultation; Federal and State legal, safety, and legislative representation and consultation; personnel services; and manpower development workshops. In addition, MEMA conducts seminars on domestic and overseas marketing, Federal trade regulations, freight forwarding, and credit and collection. This association publishes the following documents: *Automotive Distributor Trends and Financial Analysis* (periodic), *Credit and Sales Reference Directory* (semiannual), *International Buyer's Guide of U.S. Automotive and Heavy Duty Products* (Biennial), *Marketing Insight* (quarterly), and *Autobody Supply and Equipment Market*.

### *Finishing and Dismantling*

Paint, Body, and Equipment Association (PBEA) c/o Martin Fromm and Associates 9140 Ward Parkway, Suite 200 Kansas City, MO 64114 Phone: (816) 444-3500 Fax: (816) 444-0330	Members: 100 Staff: 6 Contact: Barbara Aubin
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Founded in 1975, PBEA represents warehouse distributors and manufacturers specializing in the automotive paint, body, and equipment field. This organization conducts management seminars and publishes an annual *Membership Directory* and a bimonthly *Newsletter*.

Automotive Recyclers Association (ARA) 3975 Fair Ridge Drive 320 Terrace Level North Fairfax, VA 22033 Phone: (703) 385-1001 Fax: (703) 385-1494	Members: 5,500 Staff: 12 Budget: \$1,100,000 Contact: William Steinkuller
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Founded in 1943, ADRA represents firms that sell used auto, truck, motorcycle, bus, farm, and construction equipment parts, as well as firms that supply equipment and services to the industry. This organization seeks to improve industry business practices and operating techniques through information exchange via meetings and publications, including *ADRA Newsletter* (monthly), *Automotive Recycling* (bimonthly), and *Industry Survey* (biennial).

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Contacts

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Many of the contacts listed above have provided valuable background information and comments during the development of this document. EPA appreciates this support and acknowledges that the individuals listed do not necessarily endorse all statements made within this notebook.



<sup>1</sup> TOXNET is a computer system run by the National Library of Medicine that includes a number of toxicological databases managed by EPA, National Cancer Institute, and the National Institute for Occupational Safety and Health. For more information on TOXNET, contact the TOXNET help line at 1-800-231-3766. Databases included in TOXNET are: CCRIS (Chemical Carcinogenesis Research Information System), DART (Developmental and Reproductive Toxicity Database), DBIR (Directory of Biotechnology Information Resources), EMICBACK (Environmental Mutagen Information Center Backfile), GENE-TOX (Genetic Toxicology), HSDB (Hazardous Substances Data Bank), IRIS (Integrated Risk Information System), RTECS (Registry of Toxic Effects of Chemical Substances), and TRI (Toxic Chemical Release Inventory). HSDB contains chemical-specific information on manufacturing and use, chemical and physical properties, safety and handling, toxicity and biomedical effects, pharmacology, environmental fate and exposure potential, exposure standards and regulations, monitoring and analysis methods, and additional references.

<sup>2</sup> **EPA Regions include the following States: I (CT, MA, ME, RI, NH, VT); II (NJ, NY, PR, VI); III (DC, DE, MD, PA, VA, WV); IV (AL, FL, GA, KY, MS, NC, SC, TN); V IL, IN, MI, MN, OH, WI); VI (AR, LA, NM, OK, TX); VII (IA, KS, MO, NE); VIII (CO, MT, ND, SD, UT, WY); IX (AZ, CA, HI, NV, Pacific Trust Territories); X (AK, ID, OR, WA).**

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